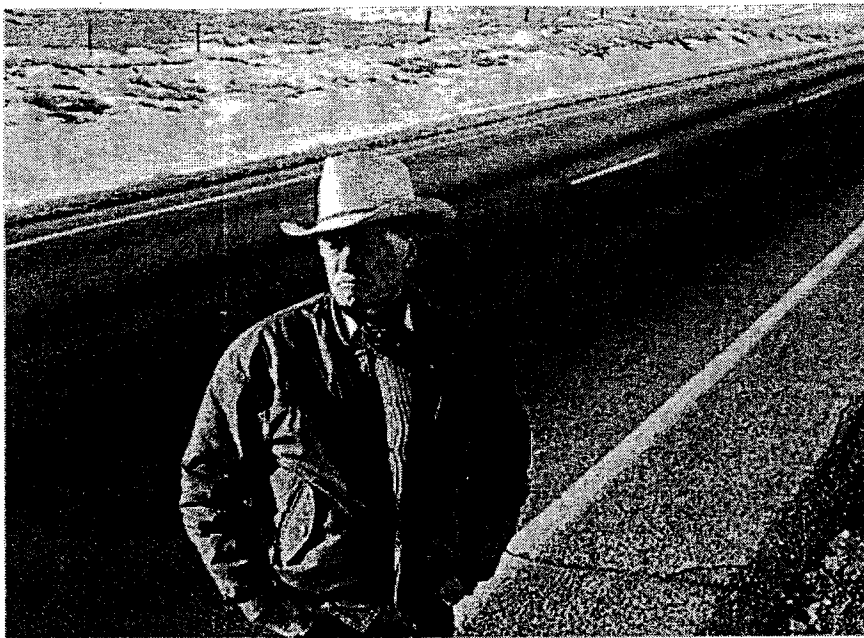


Hoping a Wider Highway Can Save Their



Lynn Donaldson for The New York Times

"We're fighting for our life," said Bob Sivertsen, an auctioneer in Havre, Mont., and president of the group pushing for the widening of Highway 2.

By JIM ROBBINS
Published: December 17, 2008

Correction Appended

CHINOOK, Mont. — For the last decade, residents of northern Montana have been praying for asphalt to stave off the disappearance of their dwindling ranching and farming towns.

Now, with the election of a senator from rural Montana, they are lobbying with renewed vigor to get the

SENATE HIGHWAYS

EXHIBIT NO. 2

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The population here in Blaine County peaked in 1940 at more than 9,500. Last year the census put it at 6,600. In neighboring Phillips County, the population peaked around 9,300 in 1920 and has since shrunk to around 4,200. The population across the Hi-Line would most likely be far lower if it were not for substantial federal subsidies paid to farmers and ranchers here.

A staggering blow was dealt the Hi-Line, Mr. Sivertsen said, when Interstate 90 was built through the southern part of Montana in the 1970s.

Life on the Hi-Line is a constant readjustment to deal with a declining population. Many businesses and homes are ramshackle or shuttered. School districts have been forced to combine. High school football teams play with eight- and six-man teams. Some towns, here and in other parts of the plains, have bought radio stations and stores to operate as they have become unprofitable. Many people have to drive 100 miles or more to get to a good-size grocery store or a doctor.

There are some bright spots. Hunters flock here in the fall for the pheasants that can be seen along the road scratching gravel. One of the two Indian reservations along the highway is building a casino, and there has been a sharp rise in the local economy the last two years because of energy development.

Officials with the Montana Highway Department say traffic data and other factors simply do not support the need for a four-lane highway. But supporters say the process is stacked against them.

"It's geared in favor of high-traffic areas," said State Senator Sam Kitzenberg, a Glasgow Republican who has led the campaign. "It says if you are not a player, you never will be. They say, 'We're going to give you a widened two-lane and a slow, quiet death.'"

Another major lifeline in the northern part of the state, one that faces cancellation on a regular basis, is the Empire Builder, the daily passenger train operated by Amtrak.

Critics of the expanded highway say the decline of the Great Plains is about more than whether a road is two lanes or four. Frank Popper, a professor of geography at Rutgers who has studied the depopulation of the Great Plains and advocates introducing bison to a restored native prairie to replace heavily subsidized farm land, said he was of two minds.

"It smacks of desperation," Dr. Popper said. The region is out of the nation's consciousness, he said, and a new road will not change that. He argued that money would

Notes on SB493

Fairly simple bill, that directs the revenue from oil and gas production taxes that are currently going to the state general fund to a state special revenue account.

- The revenue in the special revenue account will be used to build a 4 lane highway along the route of present day Highway 2.
- The one caveat is that Highway 2 from Culbertson to the North Dakota border be first on the list.
- The tax revenue only gets directed to the account if the average quarterly price for a barrel of oil is greater than \$50 per barrel or if the quarterly price of natural gas is over \$6.00 per 1,000 cubic feet.
- The bill doesn't affect revenues for this biennium. It's effective for fiscal years 2010 through 2026 so there's time to implement and plan for these additional revenues and it sunsets after 15 years.

What this bill doesn't do:

Doesn't raise taxes, doesn't change any revenues going to counties or other entities; it doesn't change any reporting requirements of producers or the paperwork they complete; and it doesn't impact any other programs or distributions. Its biggest impact is to require the Department of Revenue to direct the oil and gas production tax revenue to the special revenue account if certain conditions are met.

There are a number of good reasons to do this.

Get Montana made and grown products to market:

- One of the excuses that are often used when talking about economic development in the state is that "Montana's too far from the markets". That's a handy excuse for some folks and there's not much we can do to change that perception or our geography. But, we can make it easier to move Montana products to those markets by improving our transportation system. And, the way to do that is to pass SB493.

Economic benefits:

- While construction is taking place, construction crews will stay in towns across the highline providing an economic benefit to those communities. The crews will use local services like motels, bars, restaurants, movie theaters, museums, etc
- As the highway is improved, we would anticipate more vehicle traffic from tourism and trucking. This should open up the highline to increased economic activity in other areas like manufacturing and value added agricultural products. It may even provide some competition to the railroad.
- Under this bill, we'll be creating good paying jobs that make long-term contributions to the well being of the state. You'll create those jobs by passing this bill and those jobs will continue all across the highline for at least 15 years.

And when you talk to the voters in your area, you can say you helped create these jobs without raising taxes or creating some new bureaucracy. Everything needed to administer this bill is pretty much already in place or it will be by the time the bill is effective.

Improve Safety:

- Kids in the schools up there are on Highway 2 all the time for athletic events, speech, drama and music festivals and other school sponsored activities. They travel year round in most kinds of weather and conditions and this will improve the safety of the roads that they are constantly traveling on.
- There's a lot of other interaction between the communities on the highline and, not only will the kids be safer, everyone traveling those roads will be safer.

Enhance Federal highway funding:

SB463 should enable us to stretch federal highway dollars as much as possible by "piggy backing" onto road projects.

- Imagine this: the feds and state are going to build a 5 mile stretch of highway. The expenses for surveyors, draftsmen, engineers and road crews are already being shared between the feds and the state. With the money from SB493 we could make that portion of this highway project a 4 lane highway. Most of the expense is already taken care of and we should only have to pay the costs associated with the extra field work, engineering work, and the actual construction work and materials associated with either widening or lengthening the highway. It should allow us to get a bigger bang for the federal buck.
- And, if federal funding isn't available, we can use these funds to build the roads ourselves. The Department of Transportation can prioritize projects, develop the plans and let the bids just as they do now, but with money that comes directly from the state.
- And, naturally, any construction we do will comply with all federal and state requirements for construction standards and safety.

Montana's "can-do" spirit:

- Prior to 1916, public roads were primarily the province of state and county gov't. The federal gov't didn't really get actively involved in road construction projects until the 1930's. And the federal interstate system wasn't authorized until the 1950's. In a way, this bill takes us back to those times when states were more independent and made their own way and decisions.
- We're not asking for federal money, although that would be great and we'll use it any time we can. I think everyone recognizes the benefits associated with an improved Highway 2 but the questions has always been "How do we pay for it?". SB493 answers that question.
- This is the Montana way, we're independent and when we think something should be done, we roll up our sleeves and do it. This bill projects just that attitude.

Amendments and clean up:

There are a couple of clean up amendments that need to be included. One is to clarify the price per 1,000 cubic feet of natural gas produced. The language in the bill says the price per million cubic feet is above \$6.00 and it should say that when the price per 1,000 cubic feet is above \$6.00.

The Department of Revenue will need to update their computer system to handle the distribution of these taxes since they're not specifically identified in the existing system. That expense wouldn't be necessary until fiscal year 2009.

The bill also needs someone to administer the special revenue account. The Department of Transportation should be responsible for administration and they should have administrative rule authority to implement the provisions of the bill.

And, there are references to the "state portion" in the bill. Those references should be amended to indicate that it's only the "state general fund portion" of the tax that's re-directed.

Closing: SB493 is a good idea. It doesn't raise taxes and it still provides a way to fund construction of Highway 2. It will work within existing administrative structures so there's no new bureaucracy created. By passing this bill, you'll provide some good economic benefits, good jobs and safety improvements. It should also allow us to get a bigger benefit from the federal highway dollars we receive. Give a "Do pass" on SB493.

Potential questions and caveats

I think the price per million cubic feet of natural gas is \$6.00. However, I couldn't find any good description of the price in the LFD Revenue Estimates or the DOR rules. An MCF is 1,000 cubic feet and the \$6.00 may be in reference to that figure, although it doesn't look like it based on the LFD chart. If the price is \$6.00 per MCF, you'll want to amend the bill to make it clear. You should probably verify with someone in the department more familiar with the calculation of the price of natural gas prior to the hearing. I'd suggest Van Charlton at 444-3584; he's the Unit Manager of the Natural Resources Division of the department.

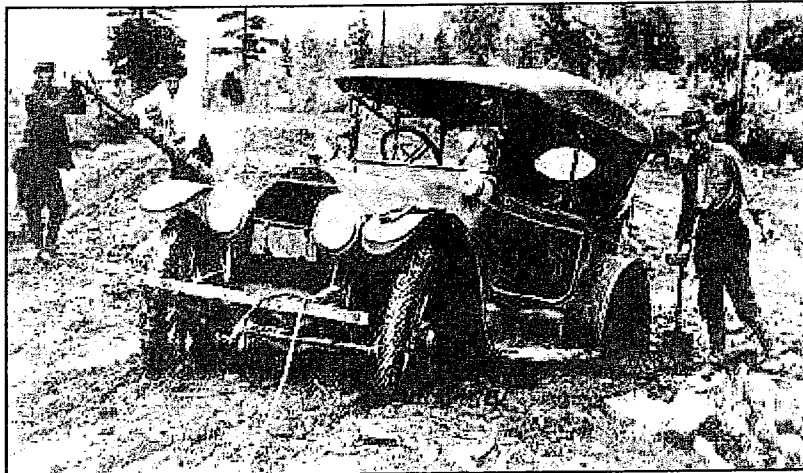
1. This bill earmarks revenue. Some folks think earmarks are not a good thing as they tie the hands of decision makers who don't have access to those earmarked revenues.
 - When there is a connection between the source of the revenue and its eventual use, earmarks are used in many ways. Tobacco taxes are earmarked for prevention programs, as are alcohol taxes; lodging taxes are allocated to tourism promotion; and many natural resource taxes are spent on mitigation strategies and boards that oversee the industry just like the oil and gas production taxes are today. In my mind there's a connection between oil and gas production taxes and building better roads with those taxes. That's especially important to note since this doesn't raise taxes or change any other distributions, it's taking the state portion of revenues that are already being generated and using them in a different manner.
2. Some folks might object to using the funds exclusively for Highway 2 construction.
3. Some folks might object to directing 100% of the funds to the special revenue account.
 - a. You might want to consider directing 50% of the funds to the special revenue account. The impact to the state general fund is not as great and it still would provide about \$50 million per year for construction projects. The 10 year average of oil and gas taxes going to the general fund is \$30.5 million per year.
4. Some folks might object to the language about the price per barrel of oil exceeding \$50 a barrel and may want to put sideboards on the price (maybe \$50 to \$60 for oil and \$6 to \$7 for natural gas). Sideboards would switch the revenue flowing back to the general fund at some point.
5. There may be questions about using natural gas production taxes for highway construction. The connection between natural gas and highways is more tenuous than the connection between oil and highway construction.

6. This bill does take money from the general fund and some folks might object to that, especially with the recent status of HB2. There's some potential that this will make it more difficult to reconcile the different budget bills and ending fund balance.

Go to the Public Roads Web site
Federal Aid Road Act of 1916:

BUILDING THE FOUNDATION

by Richard F. Weingroff



Even up to the middle of this century, many roads in the United States were unpaved, and after a good rain they were a virtual quagmire.

"The remedy must be as radical as the disease is deep-seated."

- Gen. Roy Stone, Oct. 20, 1892

As suggested by Gen. Stone a year before he became the federal government's first special agent and engineer for road inquiry, the "disease" was bad roads. Well into the 20th century, calling them "roads" gives them more credit than they deserve. They were often little more than trails that were muddy in the rain and dusty the rest of the time. Any long trip by automobile required not only time, patience, and ingenuity, but tire-patching equipment, tools, spare parts, and emergency food and fuel.

Since the mid-19th century, roads had been universally recognized as a state and local responsibility. And if state and local officials let the roads deteriorate, so be it. That was their decision, and in an era when privately owned railroads dominated interstate travel and commerce, it was not a national concern.

This attitude began to change in the 1890s, when the bicycle revived interest in roads. New Jersey, in 1891, became the first state to adopt a "state-aid" plan, under which a state appropriates funds to be made available to its counties for road improvements. The federal government created the Office of Road Inquiry in 1893, under Stone, to advise state and local officials on the best methods of improving their roads.

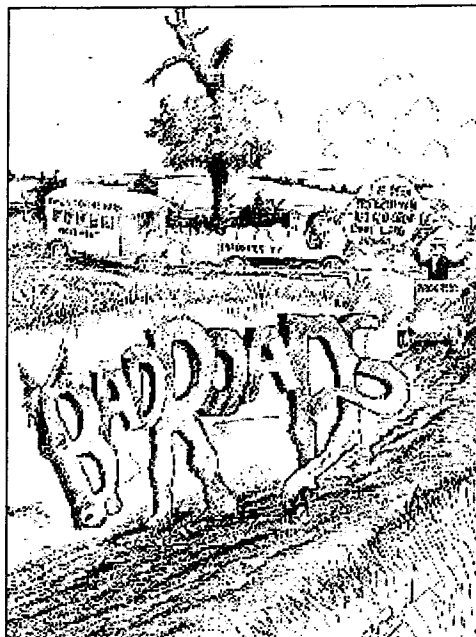
Early in the 20th century, Stone's successor, Martin Dodge, began advocating a similar concept of "federal aid" to the states. Dodge's assistant, M.O. Eldridge, drafted a federal-aid bill, which was introduced to Congress in December 1902 by Rep. Walter P. Brownlow of Tennessee. The bill would

create a Bureau of Public Roads to administer \$20 million a year in federal aid. Grants would be made to any state or county that agreed to pay 50 percent of the road construction cost. The federal government would prepare the plans and specifications for the roads, but the state or county would administer and supervise the contracts.

The Brownlow bill was not actively considered by Congress. Many members of Congress were not convinced the federal government had the constitutional authority to enact such a program. Others questioned the wisdom of embarking on a program that would be a constant drain on the treasury. Over the next decade, many other good-roads bills were introduced, but like the Brownlow bill, they were routinely assigned to committee and promptly forgotten.

Several factors gradually altered the reluctance to consider the federal-aid concept. First, the growing involvement of farmers in the good-roads movement reinforced the importance of roads in everyday life. Farmers who initially resisted being taxed to pay for good roads so wealthy city "peacocks" could ride their bicycles became enthusiastic advocates of good roads with the introduction of Rural Free Delivery (RFD), which depended on the existence of passable roads for home delivery of mail.

Second, the rise of the automobile in the early 20th century altered the picture, particularly after 1908, when Henry Ford introduced the low-priced Model T that the average person - not just the wealthy - could afford. The growing power of motorists was reflected in the American Automobile Association (AAA), which became one of the strongest backers of federal action on roads.



This cartoon was originally published in *Better Roads and Streets* magazine in September 1916.

Third, the Supreme Court settled the constitutional question. In a 1907 case, *Wilson v. Shaw*, Justice David Brewer wrote that Congress had the power "to construct interstate highways" under the constitutional right to regulate interstate commerce.

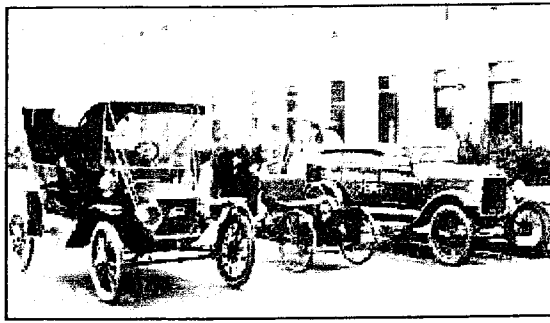
Fourth, the founding of the American Association of State Highway Officials (AASHO) in December 1914 gave the states an effective voice for advocating a national road improvement program.

And finally, the right man appeared on the scene. He was Logan Waller Page, who, in 1905, became director of the Office of Public Roads (OPR). Page was a scientist who embodied the growing Progressive Era (1900-1920) spirit of his times. He believed that scientific experts could best address the nation's road problems by applying apolitical judgment, based on irrefutable data, free of political taint and corrupt influence.

Page was a bitter foe of what he described in 1911 as "the cheap charlatanism of the professional promoter and the bungling efforts of the well-meaning but uninformed citizen." Throughout his tenure, while building the OPR into the national leader in the science of road building, Page exhibited prickly impatience with those who failed to live up to his standards.

In 1912, the growing need for an increased federal role was reflected in passage by the House of Representatives of a good-roads bill by a vote of 240 to 86. Introduced by Rep. Dorsey W. Shackelford of Missouri, the bill proposed a \$25 million rental plan whereby the federal government would make a "rental" payment to the counties for the use of roads for mail delivery. The payments would then be used for road improvements that would help get farmers out of the mud.

The Senate failed to adopt the rental plan, in part because of the opposition of AAA and other motorist groups. As AAA saw it, a national road program should proceed, as railroad development had, by first building the most important lines, the long-distance arteries of commerce.



Henry Ford (center with light coat and dark hat) with the first and last of the Model T and a quadricycle. This photograph is from the Centennial Celebration issue of *Automotive News*, Oct. 30, 1985.

Here was the basic split that would have to be resolved before federal aid could become a reality. Farmers wanted all-weather, farm-to-market roads. Motorist groups and the automobile industry wanted hard-surfaced, interstate roads. Faced with these conflicting viewpoints, Congress decided to study the issue in two ways. First, the Post Office Department Appropriations Bill for 1913 (enacted Aug. 24, 1912) appropriated \$500,000 for an experimental program to improve post roads. The funds would be made available to state or local governments that agreed to pay two-thirds of the cost of the projects. Second, the act authorized a joint congressional committee to prepare a report on the issues involved in providing federal aid for highways.

The post road program was plagued with problems. Many state and local officials resented OPR's oversight of their projects. According to a report to Congress on the program, local officials showed "a disposition frequently to avoid the obvious requirements of the present act." State and local officials also objected to certain federal requirements, such as a federal statute requiring an eight-hour day for workers and a 1915 executive order barring convict labor on government work. The U.S. attorney general eventually concluded that, because the projects were not the public work of the United States, these restrictions did not apply.

Ultimately, post road projects covered 735 kilometers of road in 28 counties in 17 states. Although these figures were disappointing, the program provided valuable experience that was reflected in later decisions on federal aid. The most important result was the realization that federal aid should go only to the states, not to the counties. OPR was too small to work with 3,000 counties, each with its own public works mechanism.

The joint committee, headed by Sen. Jonathan Bourne Jr. of Oregon, reported to Congress in January 1915. The committee dismissed the constitutional question and endorsed federal aid but was unable to resolve differences on the details.

Serious consideration of a federal road program began early in 1916 when the House of Representatives acted on Shackleford's latest federal-aid plan. It authorized \$25 million to improve "rural post roads," with the federal share being not less than 30 percent nor more than 50 percent. The funds would be apportioned to the states - half on the basis of population and half based on mileage of RFD and star mail delivery routes. (A "star route" was a delivery route awarded by contract to a private carrier.) The states would select projects, subject to federal review of surveys, plans, and estimates. All work would be under the supervision and control of the states. Beginning in 1920, any state receiving aid must have a state highway agency. The House approved the plan, 281 to 81, on Jan. 25, 1916.

Reaction was mixed. *Southern Good Roads* magazine summed up support for the bill: "... the Act is horse-high, bull-strong and pig-tight. It is pure business and without the least touch of sentiment."

By contrast, opponents thought the apportionment formula gave too little aid to the states that needed it the most. Others questioned spending so much for roads given the need for national defense funding since war had begun in Europe. Still others feared state and local officials would use federal aid for "pork" projects to reward political supporters; direct federal construction of a highway network was the solution to the "pork" problem.

The Shackleford bill was referred to the Senate Committee on Post Offices and Post Roads, headed by Sen. John H. Bankhead of Alabama. Bankhead, a long-time advocate of federal aid for roads, was also a close associate of Page. In considering federal aid in 1916, Bankhead would be guided by Page and,

through him, by AASHO.

When AASHO was founded, the first order of business was the drafting of a federal-aid bill to be submitted to Congress. Initial efforts by AASHO were stalled because of conflicting interests among the heavily populated states that had already developed highway networks and the less-populated states that had not yet done so. In September 1915, during the Pan-American Road Congress in Oakland, Calif., a small group of AASHO members met to draft a federal-aid bill that struck a balance among the interests. Thomas H. MacDonald, chief engineer of the Iowa State Highway Commission and an associate of Page, headed the small group.

The AASHO bill proposed to appropriate \$75 million over five years to be apportioned to the states by formula: one-third based on total area, one-third by population, and one-third by mileage of rural delivery and star routes. The federal share would be 50 percent, but payments could not exceed \$10,000 per mile. Each state was required to have a state highway agency that would select the "rural post road" projects, but they would have to submit their programs of projects - as well as the surveys, plans, specifications, and estimates - to the Secretary of Agriculture for approval.

All improved roads must be free from tolls and must be maintained by the state. No money could be expended in any state until its legislature had agreed to the provisions of the act. The governor's assent would be satisfactory until the legislature acted.

Bankhead amended the Shackleford bill by deleting everything after the enacting clause ("Be it enacted ...") and substituting the AASHO bill. With Page providing factual, analytical, and other support, Bankhead took the bill to the Senate floor for debate. On May 8, 1916, the Senate approved the Bankhead bill with some amendments. In addition to the \$75 million the bill authorized for federal-aid improvements, the Senate approved \$10 million (\$1 million per year for 10 years) for roads and trails within or only partly within the national forests.

Debate in the House and Senate had been extensive. Constitutional and states' rights issues were debated, as was the concern that the bill was establishing a "pork barrel." However, by far, the majority of the debate related to the formula for apportioning funds among the states and the exclusion of cities from the benefits of the act.

The House-Senate conference committee completed work on June 27 after making some changes in the Bankhead bill but leaving it largely in tact. Both houses approved the bill the same day.

The Federal Aid Road Act of 1916 was, in many ways, the embodiment of Page's ideals. Each state would have a highway agency with engineering professionals to carry out the federal-aid projects. Page and his engineers had approval authority so they could ensure the projects were designed and constructed properly. The 1916 Act also served the social function of enhancing life in rural America by focusing on rural post roads rather than the long-distance roads advocated by AAA and many others. As historian Bruce Seely said, "By incorporating this vision, the nation's first highway policy combined the Progressive goals of economic efficiency and social betterment."

On July 11, 1916, President Wilson signed the bill in a White House ceremony that was attended by members of Congress and representatives of AAA, AASHO, and farm organizations. The federal-aid highway program of federal-state cooperation was ready to go.

References

1. *America's Highways 1776-1976*, Federal Highway Administration, Washington, D.C., 1976.
2. Bruce E. Seely. *Building the American Highway System: Engineers as Policy Makers*, Temple University Press, Philadelphia, Pa., 1987.

Richard F. Weingroff is an information liaison specialist in the Federal Highway Administration's Office of the Associate Administrator for Program Development.

Legislative Fiscal Division

Revenue Estimate Profile

Oil and Natural Gas Production Tax

Revenue Description: The oil and natural gas production tax is imposed on the production of petroleum and natural gas in the state. Gross taxable value of oil and natural gas production is based on the type of well and type of production.

Statutory Reference:

Tax Rate (MCA) – 15-36-304. Privilege and license tax – 82-11-131, Administrative Rules 36.72.1242
 Tax Distribution (MCA) – 15-36-331(4), 15-36-332(2&3) (to taxing units)
 Date Due – within 60 days after the end of the calendar quarter (15-36-311(1))

Applicable Tax Rate(s): The oil and natural gas production tax has numerous tax rates depending on several factors. These factors include whether the oil or gas is produced from a stripper well, a stripper incentive well, from a well initially drilled before 1999 or after, from a well newly drilled within the last year or 18 months, and whether the interest being taxed is the working interest or the royalty interest. The Board of Oil and Gas Conservation imposes an additional privilege and license (P & L) tax on all oil and natural gas tax rates. Starting October 2006 as set by the Board, the P&L tax rate is 0.09 percent. HB 758, enacted by the 2005 legislature, allows an additional tax rate of 0.21 percent to generate revenue for local impacts for local governments. The two taxes may not exceed 0.3 percent. The following table shows tax rate percentages for each type of pre-1999 oil and post-1999 oil, excluding the P & L tax and the new Local Impact tax. The quarterly tax rates on stripper production and on incremental production are lower than that for regular production unless the price of West Texas Intermediate averages above \$30 for the quarter. Similarly, the quarterly tax rate for stripper well exemption production (1-3 barrels a day) is lower than that for regular production unless the price of West Texas Intermediate averages above \$38 for the quarter.

Oil Tax Rates 15-36-304(5)	
Working Interest	
Primary recovery production	
First 12 months of qualifying production	0.5%
After 12 months:	
pre-1999 wells	12.5%
post-1999 wells	9.0%
Stripper oil production (>3 and < 15 barrels/day if oil < \$30)	
1 through 10 barrels a day production	5.5%
>10 through 14 barrels a day production	9.0%
Stripper oil production (>3 and < 15 barrels/day if oil ≥ \$30) *	0.0%
Stripper wells (3 barrels or less/day)	
Stripper well exemption production (if oil < \$38)	0.5%
Stripper well bonus production (if oil ≥ \$38)	6.0%
Horizontally completed well production	
First 18 months of qualifying production	0.5%
After 18 months	
pre-1999 wells	12.5%
post-1999 wells	9.0%
Incremental production (if oil < \$30/barrel)	
New or expanded secondary recovery production	8.5%
New or expanded tertiary production	5.8%
Incremental production (if oil ≥ \$30/barrel)	
Pre-1999 wells	12.5%
Post-1999 wells	9.0%
Horizontally recompleted well	
First 18 months	5.5%
After 18 months	
pre-1999 wells	12.5%
post-1999 wells	9.0%
Nonworking Interest	14.8%

* No stripper tax rate. Taxed at primary recovery rates. See 15-36-303(22a)

Legislative Fiscal Division

Revenue Estimate Profile

Oil and Natural Gas Production Tax

Natural Gas Tax Rates 15-36-304(2)	
Working Interest	
Qualified production	
First 12 months	0.5%
After 12 months	
	pre-1999 14.8%
	post-1999 9.0%
Stripper natural gas pre-1999 wells	11.0%
Horizontally completed well production	
First 18 months of qualifying production	0.5%
After 18 months	9.0%
Nonworking Interest	14.8%

Distribution: Once the oil and natural gas production taxes have been collected, the revenue is first distributed based on the amounts collected from the P & L and Local Impact taxes. The amounts from the P & L tax is distributed to the: 1) Board of Oil and Gas Conservation; and 2) the Legislative Services Division - \$50,000 only in the 2007 biennium. The amounts from the Local Impact tax are distributed to the oil, gas, and coal natural resource state special revenue account. The amounts received by Board and the oil, gas, and coal natural resource account vary based on a sliding scale based on the P & L tax set by the Board. Counties producing oil receive the next share of total revenue with each county having its own distribution percentage of total revenue, including the revenue generated by the P & L and Local Impact taxes. The remainder of the revenue is distributed to other state accounts in the following manner:

Fiscal 2004 through Fiscal 2011

- Coal bed methane account – 1.23%
- Reclamation and development account – 2.95%
- Orphan share account – 2.95%
- University system 6 mill levy account – 2.65%
- General fund – the remainder (90.22%)

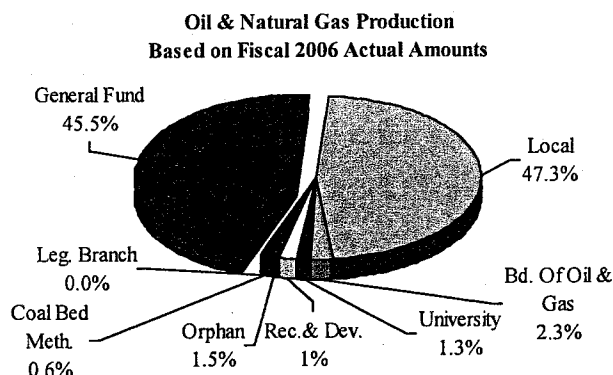
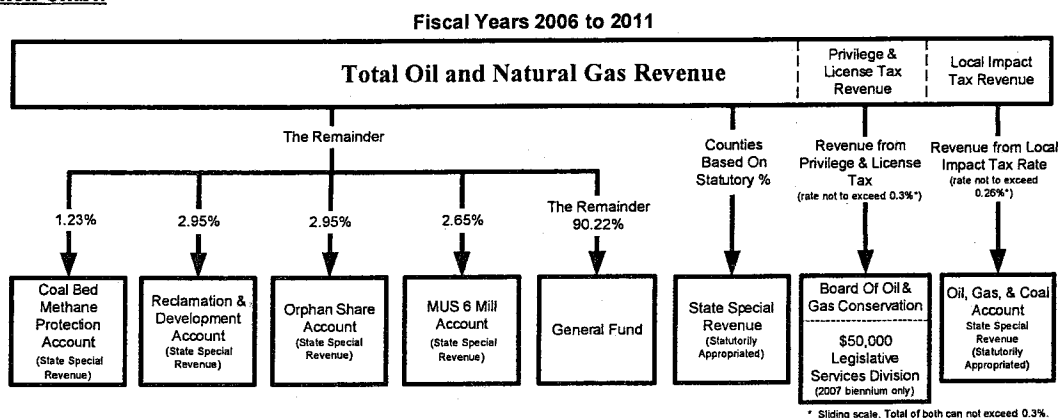
The distributions of county shares and the amount of oil and natural gas production tax revenue deposited in the oil, gas, and coal natural resource account are statutorily appropriated and are based on the statutorily set percentages for each county.

Legislative Fiscal Division

Revenue Estimate Profile

Oil and Natural Gas Production Tax

Distribution Chart:



Because the exact distribution of oil & natural gas revenue will vary depending on various factors, the chart only reflects fiscal 2006 actual distributions. Please see the table above for exact distribution percentages.

Collection Frequency: Quarterly: The oil and natural gas production tax is due 60 days after the end of the production quarter.

% of Total General Fund Revenue:

FY 2004 – 2.99%
FY 2005 – 4.09%
FY 2006 – 5.42%

Revenue Estimate Methodology:

The estimate for oil and natural gas revenue is derived from estimating the production and price from which value can be obtained. Specific statutory tax rates are used for the types of oil and natural gas that are taxed differently.

Data

Data from the Board of Oil and Gas Conservation is used extensively to isolate monthly historical production of oil and natural gas by field and by individual well. Global Insight provides future estimates of West Texas Intermediate crude and Henry Hub natural gas prices. Production, price, value, and revenue collections, by oil type, are provided on a quarterly basis by the Department of Revenue.

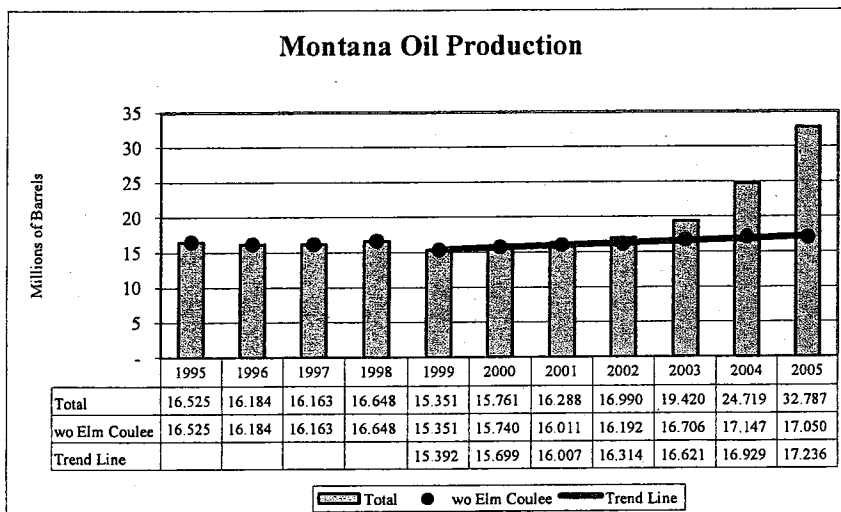
Legislative Fiscal Division

Revenue Estimate Profile

Oil and Natural Gas Production Tax

Oil Analysis

- Production - The estimate is developed on a quarterly basis with production from the Elm Coulee field separate from all other production. Analysis of the field data indicate that the majority of the increased production is from the relatively new Elm Coulee field in Richland County. The importance of this one field can be seen in the figure below.



Industry personnel state that this field has yet to be fully defined. When it is, fewer new wells will be spudded (drilling initiated). Existing wells will then follow a production decline curve unique to the characteristics of the field. Fields tapped through horizontal drilling, such as Elm Coulee, tend to be depleted more rapidly than those tapped vertically. Future production from completed wells can be estimated by developing a normalized production decline curve from the producing wells. In doing so, the difficulty of having different starting time for each well can be eliminated by averaging each well's production from a common time point. The result is a curve that represents the average production of wells in the Elm Coulee field by month of production. Production from future wells can be estimated by applying the production curve coefficients to an estimate of future spudded wells. Knowing monthly production from each well and the date it was placed into production are essential for estimating oil tax revenue because tax rates vary based on the length of time a well has been in production. The dynamics in the timing of when wells enter and fall out of the various tax rates and the changes in production at the various stages is complex, but it needs to be modeled to ensure accurate estimates.

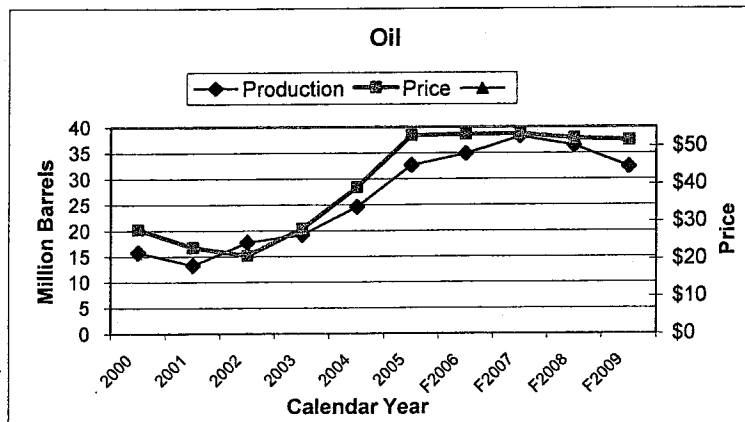
Production from all other fields is also estimated on a quarterly basis and by the different taxation types. For each quarter, the estimate is derived by multiplying the same quarter of the previous year by the ratio of the results of a regression analysis for the same quarter of the current and the previous year. The results for each tax type are then summed and the quarterly results are summed by year.

- Price - The price for each quarter is estimated by adjusting the Global Insight West Texas Intermediate crude price for that quarter by the ratio of a previous quarter's Montana price to the Global Insight price.

Legislative Fiscal Division

Revenue Estimate Profile

Oil and Natural Gas Production Tax



Once production and prices have been estimated, the value can be calculated by the product of the two. The quarterly value of each tax type is then multiplied by the applicable tax rate to obtain the estimate. The sum of the revenue from all tax types for each fiscal year determines the oil production revenue estimate.

Natural Gas Analysis

- **Production** - The natural gas industry in Montana has also been undergoing major changes. Improved techniques have allowed new fields to be developed and old fields to be more productive. Data from the Board of Oil and Gas Conservation indicate that the majority of increased production is from the relatively new CX field in Big Horn County and the Elm Coulee field in Richland County. Other fields that exhibit increasing production are the Bowdoin and Cedar Creek fields, the second and third largest producing fields, respectively. Since its peak production in 1999, production from Tiger Ridge, the largest producing field, has declined. By excluding production from fields with increasing production, it was found that production from the remaining fields has been decreasing since 2001. Of the fields with increasing production, most is coming from the CX and Elm Coulee fields. The fact that the CX field has been in production for only seven of the last 20 years, yet ranks sixth in total production out of the major fields that have been producing for the last 20 years, illustrates the importance of this field. A similar analysis to that used for oil can also be used for natural gas from the CX and Elm Coulee fields. As with oil, the development of a normalized production curve from individual wells eliminates the difficulty of having different starting time for each well by averaging each well's production from a common point in time. The result is a curve that represents the average production of wells in the CX and Elm Coulee fields by month of production. With the equation of this curve, future production can be estimated.

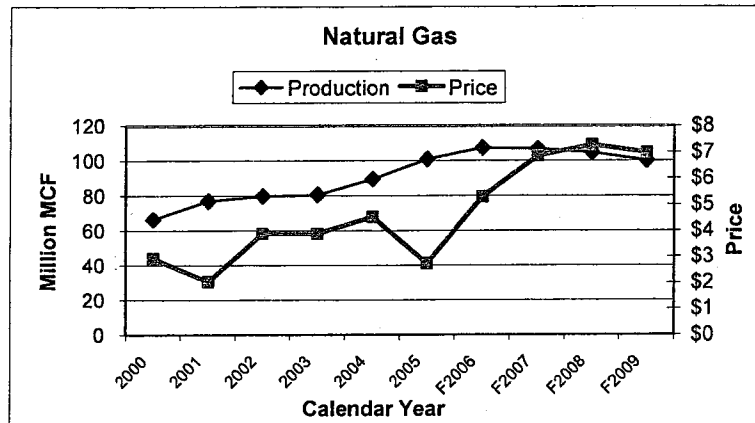
Production from all other fields is also estimated on a quarterly basis and by the different taxation types. For each quarter, the estimate is derived by multiplying the same quarter of the previous year by the ratio of the results of a regression analysis for the same quarter of the current and the previous year. The results for each tax type are then summed and the quarterly results are summed by year.

- **Price** - A similar method to that used for oil is used to estimate natural gas prices on a quarterly basis and by tax type of production. However, the Global Insight Henry Hub natural gas future prices are used to drive changes in the Montana price.

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Revenue Estimate Profile

Oil and Natural Gas Production Tax

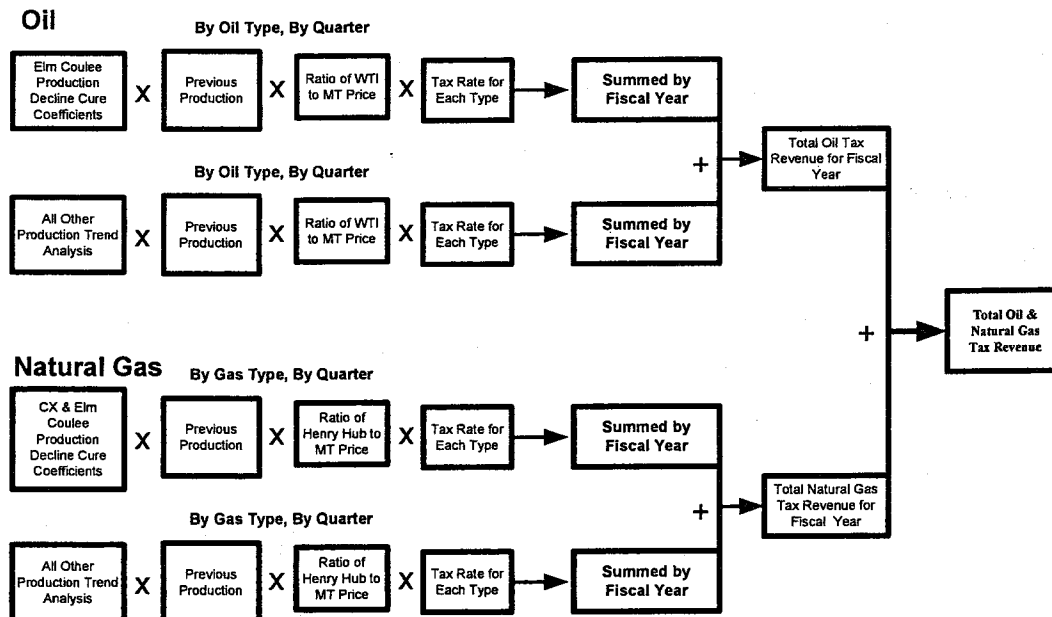


Once production and prices have been estimated, the value can be calculated by the product of the two. The quarterly value of each tax type is then multiplied by the applicable tax rate to obtain the revenue. The sum of the revenue from all tax types for each fiscal year determines the natural gas revenue estimate.

Adjustments and Distribution

Once the oil and natural gas estimates have been summed, the distribution formula is applied with the amounts to the Board of Oil and Gas and to local governments distributed first and the remainder subject to statutory percentages.

Forecast Methodology:



Legislative Fiscal Division

Revenue Estimate Profile

Oil and Natural Gas Production Tax

Revenue Estimate Assumptions:

	<u>t</u>	<u>Total Tax</u>	<u>GF Tax</u>	<u>GF Allocation</u>	<u>Audits</u>	<u>Total Tax</u>	<u>Total Tax</u>
	<u>Fiscal</u>	<u>Millions</u>	<u>Millions</u>	<u>Percent</u>	<u>Millions</u>	<u>Oil</u>	<u>Gas</u>
						<u>Millions</u>	<u>Millions</u>
Actual	2000	43.772950	11.362741	0.259584			
Actual	2001	92.395790	25.791723	0.279144			
Actual	2002	50.303610	12.902439	0.256491			
Actual	2003	73.389376	29.086038	0.396325	2.436178		
Actual	2004	92.676050	41.323718	0.445894	1.687625		
Actual	2005	137.754331	62.625939	0.454620	1.127243		
Actual	2006	203.681078	92.562800	0.454450	1.428545		
Forecast	2007	195.430000	86.240849	0.441288	0.000000	148.911000	46.519000
Forecast	2008	228.334000	101.224485	0.443318	0.000000	166.609000	61.725000
Forecast	2009	228.477000	101.287880	0.443318	0.000000	168.190000	60.287000

<u>Oil</u>	<u>t</u>	<u>Barrels</u>	<u>Price</u>	<u>Gross Value</u>	<u>Effective</u>
	<u>Fiscal</u>	<u>Millions</u>	<u>Per Barrel</u>	<u>Millions</u>	<u>Tax Rate</u>
Actual	2000				
Actual	2001				
Actual	2002				
Actual	2003				
Actual	2004				
Actual	2005				
Actual	2006	33.700000	56.569941	1906.407000	0.074541
Forecast	2007	36.588000	51.596562	1887.815000	0.078880
Forecast	2008	38.325000	52.714338	2020.277000	0.082468
Forecast	2009	34.136000	51.654236	1763.269000	0.095385

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Revenue Estimate Profile

Oil and Natural Gas Production Tax

<u>Gas</u>	<u>t</u>	<u>MCF's</u>	<u>Price</u>	<u>Gross Value</u>	<u>Effective</u>
	<u>Fiscal</u>	<u>Millions</u>	<u>Per MCF</u>	<u>Millions</u>	<u>Tax Rate</u>
Actual	2000				
Actual	2001				
Actual	2002				
Actual	2003				
Actual	2004				
Actual	2005				
Actual	2006	107.934000	6.774964	731.249000	0.078025
Forecast	2007	106.561000	5.560252	592.506000	0.078512
Forecast	2008	106.074000	7.307342	775.119000	0.079633
Forecast	2009	102.366000	7.120392	728.886000	0.082711

<u>Oil</u>	<u>t</u>	<u>Barrels</u>	<u>Price</u>	<u>Gross Value</u>	<u>Effective</u>	<u>Total Tax</u>
	<u>Cal</u>	<u>Millions</u>	<u>Per Barrel</u>	<u>Millions</u>	<u>Tax Rate</u>	<u>Millions</u>
Actual	2000	15.770217	27.674692	436.435898	0.114821	48.291803
Actual	2001	13.275582	22.967563	304.907766	0.102083	35.876151
Actual	2002	17.653122	20.779054	366.815175	0.100083	37.755024
Actual	2003	19.177655	28.025523	537.463811	0.095372	50.001667
Actual	2004	24.559083	38.992068	957.609434	0.090422	76.502684
Actual	2005	32.631373	52.762097	1721.699667	0.084783	122.494911
Actual	2006	34.827000	53.016769	1846.415000	0.076733	141.681000
Forecast	2007	38.159000	53.147960	2028.073000	0.079964	162.173000
Forecast	2008	36.425000	51.978970	1893.334000	0.088286	167.155000
Forecast	2009	32.354000	51.452185	1664.684000	0.100336	167.028000

<u>Gas</u>	<u>t</u>	<u>MCF's</u>	<u>Price</u>	<u>Gross Value</u>	<u>Effective</u>	<u>Total Tax</u>
	<u>Cal</u>	<u>Millions</u>	<u>Per MCF</u>	<u>Millions</u>	<u>Tax Rate</u>	<u>Millions</u>
Actual	2000	66.163277	2.907561	192.373764	0.106032	19.395351
Actual	2001	76.713082	2.017410	154.761739	0.104020	24.266868
Actual	2002	79.531692	3.866558	307.513900	0.104259	17.289646
Actual	2003	80.327001	3.866558	310.589008	0.099219	30.259247
Actual	2004	89.464491	4.516738	404.087668	0.093759	36.881048
Actual	2005	100.744115	2.724589	274.486307	0.090027	23.838515
Actual	2006	107.258000	5.285144	566.873975	0.077324	43.833000
Forecast	2007	106.687000	6.845829	730.360959	0.078914	57.636000
Forecast	2008	104.476000	7.261074	758.607967	0.081008	61.453000
Forecast	2009	99.981000	6.960783	695.946045	0.084728	58.966000

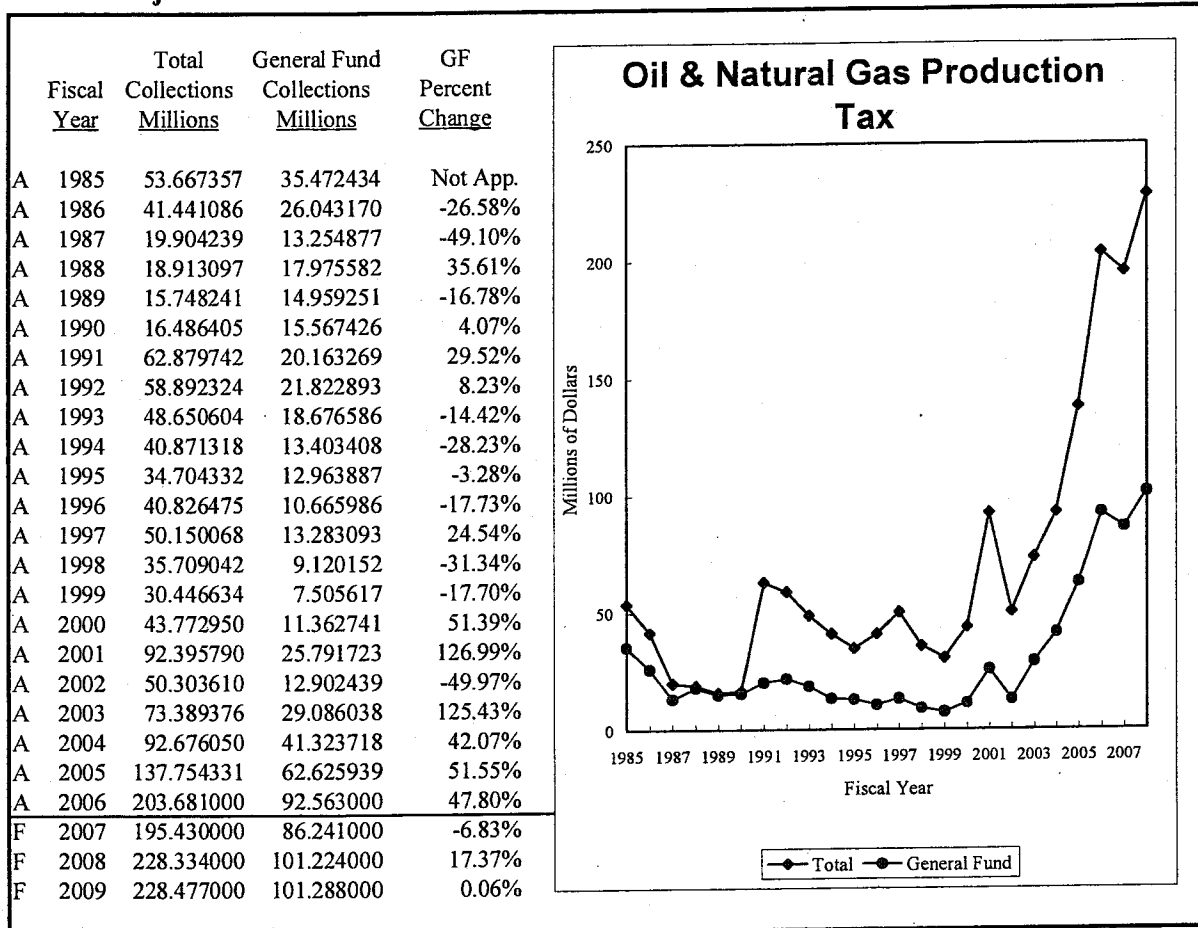
Total Tax = Barrels * Price * Tax Rate + MCF's * Price * Tax Rate + Audits
 GF Rev = Total Tax * GF Allocation + Audits

Legislative Fiscal Division

Revenue Estimate Profile

Oil and Natural Gas Production Tax

Revenue Projection:



Data Source(s): SABHRS, Department of Revenue, Global Insight, *Wall Street Journal*

Contacts: Department of Revenue, Board of Oil & Gas